

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: Scott Cranston <cranston@zk3.dec.com>  
Subject: [3612] 4sale: Sierra Kit  
Message-ID: <9509261701.AA06253@alpha.zk3.dec.com>

For sale is an original, unassembled Nor-Cal Sierra kit with band module kits for 80, 40, 30, 20 and 15 meters and 3 blank band module PCB kits. The only thing that has been opened is the manual, none of the parts bags have ever been opened and/or inventoried.

I am selling it as I'm just never going to find the time to put it together.

Cost is \$285.00 shipped in USA.

Scott  
KB1NW  
cranston@zk3.dec.com

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: Scott Cranston <cranston@zk3.dec.com>  
Subject: [3622] 4sale: Sierra Kit  
Message-ID: <9509271630.AA14546@alpha.zk3.dec.com>

For sale is an original, unassembled Nor-Cal Sierra kit with band module kits for 80, 40, 30, 20 and 15 meters and 3 blank band module PCB kits. The only thing that has been opened is the manual, none of the parts bags have ever been opened and/or inventoried.

I am selling it as I'm just never going to find the time to put it together.

Cost is \$285.00 shipped in USA.

Scott  
KB1NW  
cranston@zk3.dec.com

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: Mike J Pulley <Mike\_J\_Pulley@ccm.ch.intel.com>  
Subject: [3609] ARIZONA QRP-AFIELD 1995 (long)

Why do QRPers insist on using our laptop-sized radios outdoors? I've settled on five answers.

1. Every really critical radio operation has always been portable. Operating from a picnic table beneath the open sky links us with those Real Communicators of Lore, those men and women who got the message through under tough conditions. You're with the WWII Australian coast watcher reporting enemy movements and never more than one step ahead of capture. Your breath hangs in icy clouds with the Antarctic explorers who reach out and touch someone for morale and supplies. You're preparing for the day when your training, ingenuity, and mettle are put to the test and you work among the hams who report widespread or remote catastrophes and serve as the conduit for relief messages.
2. QRP is by nature small and light and therefore portable. This is the "we do it simply because we can" argument, the same reason many professional musicians relish hitting those high notes and hot licks.
3. Outdoors is an excellent opportunity to experiment with big antennas. This is our chance to test the theory that whatever we forfeit in QRP power, we recover in efficient killer antennas.
4. The scenery in our home shacks rarely change. Though our signals travel to yonder corners of the globe, we sit glued to a 10 foot operating radius. How long can we stare at the same wall or out the same window without suffering psychosomatic psymptoms?
5. It's fun to watch the reactions we get from onlookers!

This year was especially rich in onlooker reactions. Shortly after we started, "Burton", a gray veteran from the war in the South Pacific, hobbled over on crutches, attracted by the sounds of CW. The sight of simple radios (and simple people using them, no doubt!) prompted him to reminisce about a younger time before crutches were necessary. Burton sat patiently, listening and conversing between contacts. He had learned Morse back in the Navy Air corps, but became tongue-tied in the language from years of disuse. The compact, though obviously fully functional, NE 40/40 sparked his imagination. He was amazed that a complete radio station could be small enough to fit into a 50 mm

shell box. Ever the flier, Burton saw QRP as the ideal emergency communications kit for downed aircraft.

Then there was the couple in the adjacent campsite who rolled out late in the morning to discover our longwire antenna stretching 60 feet overhead. When asked how we got it up so high, Resident Diplomat Rocky Evans, KG7VG, told them we stood on top of their tent and threw rocks over the trees. We thought it was pretty funny, but I don't think the neighbors appreciated the humor. Maybe that's why they confiscated our spool of string near their campsite.

Lots of people on their morning walks pointed at our picnic table, then into the treetops with wide eyes. "How did they get that up so high?" What? That? Oh that's easy with this trusty wrist rocket sling shot thingy here. You say you've never seen a sling shot with a casting reel attachment? I'll tell you, it's a sight better than shinnying up those trees or throwing Mr. Crescent Wrench! It's a lot safer, too.

Later in the day, "Joe" stepped over. You see, curiosity had been gnawing on Joe all morning and finally got the better of him. Joe's a ham from Phoenix, too. He's often fantasized about operating portable from a picnic table in Arizona's tall Ponderosa pines, but he had never actually seen it done. Until now. He asked questions about every piece of equipment and every technique. I expect to hear him on these QRP contests someday.

#### Obligatory QRP Content:

=====

Ours was essentially a 2-ham operation again this year. Rocky Evans, KG7VG, and Mike Pulley, WB4ZKA, along with Mike's wife and daughters and Rocky's dog, headed to the tall, cool mountains just south of Flagstaff, AZ for QRP-Afield. Our station consisted of NE 40/40, MFJ-9020, borrowed tuner, and an end-fed longwire antenna with <trip!> lots of <snag!> radials <stumble!> connected directly <tug!> to the tuner.

Being on the western fringe of a New England-based radio club does have its drawbacks. Namely, we couldn't hear anyone from New England. Well, almost. We did work W1NRG (#300) in CT. Out of 31 QSOs, we

worked only 6 NE-QRP members, mostly from west of the Mississippi. The rest were a mixture of QRP (64%) and QRO (36%) stations who stopped by for a brief chat. The membership number in our report confused several operators. They thought it was a serial number, so we worked two club founder stations with "membership" # 001! Next year, I think I'll report my power like a non-member to avoid so much confusion and explanation.

We \*really\* liked the sliding contest period this year. Six hours is the perfect contest duration to enjoy with non-ham family and friends. There is a movement afoot here to redefine Field Day for our group as a sliding 6- or 8-hour QRP contest in a 24-hour window. We plan to compete just against ourselves from year to year, and avoid making it a blood 'n' guts radio marathon.

31 QSOs, 13 multipliers, high power, in the field brings our score to 1612, two-thirds of last year's score. Wait til next year!

Thanks again to Jim Finton and Chester Bowles for putting on another excellent QRP-Afield!

Regards,

-- Mike Pulley, WB4ZKA  
Phoenix, AZ

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: Jeff Gold <JMG@tntech.edu>  
Subject: [3591] Black Hole/time warp  
Message-ID: <01HVUCTJI3VSI1FRF0@tntech.edu>

all,

I think I have come up with a new QRP reality.. or at least it appears to be so. I believe that if I have observed it.. others must. If myself and enough others have encountered the phenomenon, it could possibly be a reality.

I was exhausted yesterday.. counterbalancing this is my desire to know if my new OHR400 works or not.. I am not a patient person.. when I finishing building and assembling an exciting new project, I like to get it aligned and try it on the air as soon as

possible. My current schedule seems to not have allowed this to happen.. I try to avoid touching things that can blow up easily after a 14 hour harried work day.. guess you can teach an old dog.. more sense.. or something like that..

I have had the 4 bander pretty much assembled and had started the alignment and thought that it may be working without any major fault finding (always a pleasant surprise). Just hadn't had the time to finish it. Then ran into a problem tuning the coils on the oscillator board for the filter (haven't looked at the schematic.. so really have no idea if I am right). I couldn't get my scope to show me any useful information (and no longer have a general coverage receiver). Got the local whiz kid to give me detailed instructions to make sure I was doing the scope right (also a member of this group.. Conard, WS4S). Well that still didn't work.. so I got down on my hands and knees yesterday and started to cry and beg and plea (actually I just asked him nicely) to come over and figure out where I was messing up.. figured he could do it and have the coils tuned in less than 5 minutes.

Well needed to have a ground from the old power supply to the scope.. never happened before...once I knew that worked we got to playing around with rigs.. wanted him to listen to my Omni VI.. love the rig .. but the QSK drives me crazy.. there is a squeek.. some timing capacitor (have had it back to TT twice .. and the one they had in the showroom did the same thing). Ended up doing a QSO on the Norcal40.. heard a real weak signal, so fired up the old bug and ended up having a complete QSO.. no problem.

OK, you might at this point think I am rambling, and in fact I might be.. but it relates to my initial hypothesis. Well Conard and I played in the shack. in the middle of which a friend called with some fried solid state device.. told him the whiz was over and to drive over with it.. so had to find that problem.. we ended up playing and talking for a while, before I about passed out and he had to return home.

Decided to sit down and finally for the first time watch some TV to give my brain a rest.. that lasted about half an hour. .some strange mystical calling beckoned me from the ham shack.. I just had to know about tuning up the filter section.. and maybe just one tiny weeney more step.. hoping to get closer finally being able to use the rig.

Well, hard as I tried.. couldn't resist. .next thing I knew the scope, the frequency counter, power supply and all were humming .and there I was messing around with the rig... this was still not too late.

Well next thing I knew it was after midnight and the rig may or may not be tuned.. was getting out over 5 watts on all bands except 20.. only getting 3 watts out.. but I can live with it.. think the rest might be tuned.. have no idea how it got that way..

So.. the hypothesis:

My ham shack is really a black hole in disguise.. it sucks me in and then the time continuum gets all messed up.

Can't wait to get home and see if it is really tuned up and working, or when I escaped the black hole if events got reversed.

73

Jeff

PS.. the rig seemed to tune up very easily .. think you could probably do the whole process with a QRP wattmeter, a counter and a voltmeter and do just as good a job.. maybe a general coverage receiver, voltmeter if you were desperate.

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: dh@deneb.csustan.edu (Doug Hendricks)  
Subject: [3610] Cascade errata #3  
Message-ID: <9509300007.AA12464@deneb.csustan.edu>

The silk screen pattern for the 75M band module is wrong for the number of turns on L2. It shows 20 Turns, it should show 23 turns, which is consistent with the schematic and parts list. Keep us posted on your progress.

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: dh@deneb.csustan.edu (Doug Hendricks)  
Subject: [3621] Cascade Errata 3  
Message-ID: <9509300548.AA12775@deneb.csustan.edu>

Lee Stanford just called, and I dropped a line from the manual in Section 5. The line calls for you to install the following:

C68, C69, C70, C71, C74, C75, C79, C88, C92, R47, R48, R51, R52

It looks like I will have to ship an errata sheet to all purchasers. As soon as Lee gets his up and running, I will send out the sheet. Lets see, 200 times 32 cents is \$64, will have to do it. Sorry for the inconvenience, but thanks to Lee for all of his help. 72, Doug

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: "David D. Meacham" <ddm@datatamers.com>  
Subject: [3620] CASCADE MODS, BULLETIN #1  
Message-ID: <Pine.LNX.3.91.950929211724.15383A-100000@dt1.datatamers.com>

Cascade builders, Here are some mods to improve your rig:

- 1) Reduce R63 to 1k Ohm to cure overmodulation.
- 2) Increase R25 to 22 Ohms to reduce audio gain (if you prefer).
- 3) These changes are for the 75-meter band module. They improve the low-pass filter match for the PA while maintaining proper harmonic rejection. Output power goes from about 6W to about 9W PEP.

L2=L3=2.1uH, 23T #26 On T37-2 core. Measure if you can, and adjust spacing of turns for 2.1uH. I had to use 22T on one core!

C12=680pF

C15=1200pF

C16=560pF

C14=150pF

These mods came from work on the final prototype rig I built. Enjoy!  
72, Dave, W6EMD (NorCal #339)

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: "Jim Kortge, NU8N" <jokortge@sun.lisp.com>  
Subject: [3614] Cascades Arrive  
Message-ID: <9509300158.AA03665@sun>

Doug....the rigs are here. Just unpacking the first as I am typing this.  
WOW, what a nice job done by all. Hope they work as well as they look.  
Going to order the parts Monday to build the first one on 40/17.

Thanks again for all the effort by you and friend John, K7RO and the rest of the gang that helped make this project a reality.

72 de Jim, NU8N

P.S. No QRPp in Michigan yet. The donkey pulling the mail wagon must have drowned crossing the Mississippi River or in Lake Michigan! ;-)

|                   |         |                        |
|-------------------|---------|------------------------|
| Jim Kortge, NU8N  |         | Bicycle Mobile Hams    |
| jokortge@lisp.com | __o     | of America             |
| Fenton, MI        | _'\<,   | Mizuho 17m/40m QRP SSB |
| .. .. .           | (*)/(*) | . . . . .              |

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: pcalcand@sescva.esc.edu (PETER CALCANDY)  
Subject: [3613] Contest Maillist???  
Message-ID: <95092920524837@sescva.esc.edu>

Is there a maillist for contesting?  
Thanx Peter N2KPY

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: joe@westonia.com (Joseph Cooper)  
Subject: [3617] Crystal Radio's and QRP  
Message-ID: <m0syu2S-0010FRC@gpu.westonia.com>

>With all of this talk about Crystal Radio sets, I have to make a plug for  
>

>The Xtal Set Society

>P.O.Box 3026

>St.Louis, Mo

>63130

>

>You get a bi-monthly professionally produced newsletter for a membership fee of \$9.95 U.S. The people involved are a good mix of historial researchers and experimenters. The articles range from the highly scientific (even using computer programs to optimize coil designs)through to reviews of classical articles found in old magazines and books.

They also just have fun with the basic mystery and romance of the unpowered radio that we all knew as kids. My own first xtal radio (the one that got me hooked on radio in general) was the classic 'rocket ship' design that was tuned by a variable inductor attached to the 'nose cone'. I now understand that they are worth about \$300 mint with their original box.

>

>They also publish the Xtal Set Handbook at \$9.95 which is a reprint of one



set of >their newsletters plus some extra material on the math involved in  
designing good LC >curcuits. This stuff pulls no punches.  
>  
>Frankly I still get a kick out of building crystal sets, and when you start  
looking at  
>the design possibilities they stop being toys and become real radio equipment.  
>  
>There are a number of people who produce very nice crystal radio kits, and  
there is  
>one ham that I know, Leonard Gardner - W2QBC in Tonawanda NY, who produces  
beautiful  
>wooden cabinent sets (send him a dollar for his catalog, you'll be impressed).  
>  
>Frankly I'll let you in on a secret. I am planning on building an xtal set  
based receiver to go along with my one tube 50C5 QRP transmitter that I'm  
working on now (a nice kit from Bob, N2EDF in Ogdenburg NJ that runs about  
\$40.00 U.S).  
>  
>So there you have it; retro technology at its finest. I'll keep you posted  
on the results.  
>  
>And just so you all don't scratch your heads at my sanity, my other QRP rig  
is an HW-7 that I bought new and put together as a kit when they first came  
out, and got through to Los Angeles CA from here in Toronto on 40 meters  
with one watt, when the sun spots were still cooperating. Its now lending  
its parts to the restoration of another, more healthier HW-7 that just needs  
some encouragement to be back on the air.

73's

=====  
\* Joseph Cooper-VE3FMQ QTH-East York-near Toronto Ontario Canada \*  
\* Interests are:- BCB and VLF Radio-Woodworking-Steam Railroads - \*  
\* -Nikola Tesla-Antique Radios-Crystal Radios-Travel-Burmese Cats \*  
\* FAX (416) 423-7782 9:00pm to 5:00pm EDST Monday To Friday Only \*

From qrp-l@lehigh.edu Sat Sep 30 10:23:00 1995  
From: George.Gingell@bbs.abs.net (George Gingell)  
Subject: [3603] CRYSTAL SET  
Message-ID: <1995Sep29.155939.28134@abs.net>

Cam,  
The T.P. roll (Toilet Paper roll coil form) is your problem. I can supply  
a Telephone Receiver Unit which you can use for the Earpiece. (Varistor

must be cut out) I like a bigger coil myself. (Oatmeal Box). Oddly enough, Quaker Oats once offered Plans to use their box for a Crystal set. A real Classic. I have some Germanium transistors if you want to try an amplified version.  
QRP DX TU (C)1986 Danny Gingell, K3TKS

--  
George Gingell, user of the UniBoard System @ abs.net  
E-Mail: George.Gingell@bbs.abs.net  
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA  
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: paul1@wizard.ucs.sfu.ca (Paul Erickson)  
Subject: [3618] Far Circuits email address?  
Message-ID: <9509300427.AA09041@wizard.ucs.sfu.ca>

Does anyone know if Far Circuits has an email address??

cheers, Paul

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: Scott Rosenfeld NF3I <ham@w3eax.umd.edu>  
Subject: [3624] FS: Ark 40 by S&S  
Message-ID: <Pine.3.89.9509300830.A2354-01000000@w3eax.umd.edu>

Checked out by KA3ZOW himself, and has the keyer unit installed as well. Has built-in audio filter, speaker, pushbutton tuning, and is built like a brick (all aluminum).

With box, manual, and plug for power jack. Asking \$275/ofr, selling for KA3RTE, Govind.

Scott Rosenfeld NF3I Burtonsville, MD FM19 QRV 40-10/6/2/440  
\*\* Yes, you CAN do VHF contests with 25W and omni antennas \*\*  
Still stuck at 138 countries confirmed on HF w/dipoles...

-----  
72 & 73 from lovely suburban DC 301-549-1022 weekends/evenings

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: Steve.hideg.1@nd.edu (Steve Hideg)  
Subject: [3606] Grid Dip Meter  
Message-ID: <v02130505ac92165eea12@[129.74.35.16]>

I bought a Cushcraft A3 tri-band beam from someone via the net. When I opened it up and studied the documentation, I noticed that there are different traps for the director element than those used for the driven and reflector elements. The traps I received have no markings on them (they must have worn off). Cushcraft gave me the frequencies of the traps so that I may measure them with a grid dip meter.

I have my father's old Heathkit grid dip meter, but I've never used it.

Does anyone here have any tips on using one to measure these traps? Specifically, I'm confused about positioning the meter in relation to the trap. Also, should I try to suspend each trap by a string to keep it away from other objects while doing this measurement?

Thanks.

72  
--Steve

-----  
Steve Hideg    Macintosh Consultant/Analyst

|                                     |                                                                          |
|-------------------------------------|--------------------------------------------------------------------------|
| Office of University Computing      | Telephone: (219) 631-EXAM                                                |
| G034 Computing Center/Math Building | E-mail: Steve.Hideg.1@nd.edu                                             |
| University of Notre Dame            | URL: <a href="http://www.nd.edu/~shideg/">http://www.nd.edu/~shideg/</a> |
| Notre Dame, IN 46556                | Ham Radio: N8HSC/9                                                       |

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The road to Enlightenment is long and difficult.  
(So bring snacks and a magazine.)

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: smohan@telenet.com (Sam Mohan)  
Subject: [3604] Homebrew CW Filter???  
Message-ID: <9509291808.AA05980@orchid.telenet.com>

I heartily second it. Ed's passive filter is inexpensive (I think, it cost me \$20 six months ago) and came assembled (almost!) in a nice

case! Works like a charm and I would suggest it anyday when somebody is trying homebrew a CW filter. It took me about 30 mins. to put it together and it was very easy. Go for it. It will be bux well spent.

73 Sam N3UTM  
SMohan@Orchid.Telenet.com

PS: I am just a happy customer. I am not connected to Ed Wetherhold in anyway...blah, blah, blah.

-----Begin Included Message-----

Adam,

Go for the CW filter that has been in the ARRL handbook for the last few years. It was designed by Ed Wetherhold, W3NQN, and it works like a champ! Totally passive, not requiring any power, it goes between the audio output and your speaker or headset. I've had mine for 3 years and it works just like it is advertised, fantastic!!! I sent for the parts and the toriods were free...I had to pay for the capacitors, but geesh,... it was cheeeeeeep!

If you don't have the ARRL handbook, go to the public or university library and check: TK6550 R18 or around that area in the library.

Write to Ed at:  
E.E. Wetherhold W3NQN  
1426 Catlyn Place  
Annapolis, MD. 21401

I'm not finacially connected with Ed, but I sure endorse his design!  
73eezees (just joking....) de

```
*****
*      NN      N  SSSSS  888888  00000  Greg Weinfurtner AEE BSS *
*      N N      N  S      8      8  0    0  Electronic Design Splst *
*      N N      N  SSSSS  888888  0    0  Ohio University Athens *
*      N      N N      S  8      8  0    0 *
*      N      NN  SSSSS  888888  00000 *
*
*                                     Canst thou send lightnings *
*      Amateur Radio NS80           that they may go and say *
*                                     unto thee, 'Here we are'? *
*      weinfurtner@ouvaxa.cats.ohiou.edu           Job 38:35 *
*****
```

-----End Included Message-----

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: "Dave.Schaller." <david.schaller@hanover.valley.net>  
Subject: [3605] KH6CP's 20 mtr transceiver  
Message-ID: <199509292041.QAA27653@dartvax.dartmouth.edu>

Hello to all--

I'm wondering if anyone on the list has had any experience in building KH6CP's 30 watt 20 meter transceiver that's featured in the '95 Handbook. A group of us locally built Zack's 40 meter QRP transceiver that was in the 3/93 issue of QEX and each of us had great success with it, so we thought we'd give his 20 meter rig a try, especially since they are somewhat similar in design.

The text of the article in the Handbook is rather brief and leaves a number of details somewhat to one's imagination. As it says in the text, the design is a "work in progress", so we wonder if anyone has tried it or knows of any later modifications or suggestions.

Thanks in advance for your comments!

73  
Dave, WI1S

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: am257@detroit.freenet.org (Tim English)  
Subject: [3607] Looking for mailing list  
Message-ID: <199509292153.RAA10942@detroit.freenet.org>

Anyone know of a mailing list I can get on that is just for buying/selling/swapping ham gear ? Have done in depth www searches and can find everthing but a swap net or group. If you know of any please send me the email address. Have some stuff to try and sell.  
Tim, WB80GM (am257@detroit.freenet.org)

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: jess.gypin@dinosaur.com  
Subject: [3615] Loop antenna  
Message-ID: <9509292034.0SWCD00@dinosaur.com>

-=> Quoting 73377.2173@compuserve.com to Jess Gypin <=-

73>

73> Jess:

73>

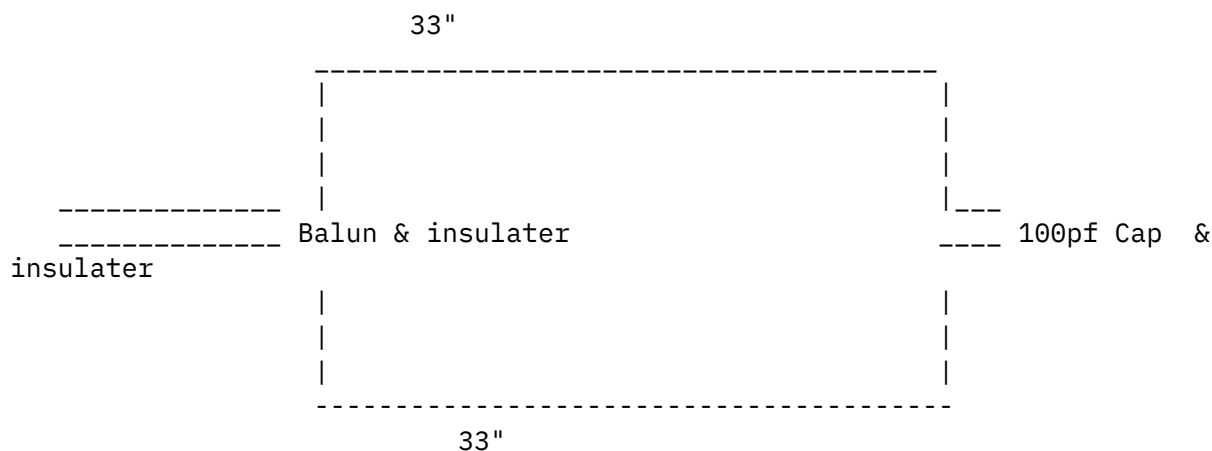
73> I just read about your loop deisgn. I am not the best at following  
73> written directions such as those here, and usually need to \_see\_ in  
73> order to \_do\_. Did you get that design from any magazine article that I  
73> may have on my shelf or is it available any where?

73> How will it work compared to the now commercially available loops,  
73> such as the MFJ and AEA? I have used the Isoloop and love it's  
73> performance, However for QRP portable it is much muchmuch too big. I  
73> want something that can be broken down and carried with my QRP PLUS and  
73> battery....

73> 73, Peter K2MMT

73> FAXno: 914-241-9236

The antenna was in the Five Watter several years ago. I have a copy of the  
articel and would be happy to forward it to you, or I will attempt a poor  
ascii drawing here and see if that helps.



#### Balun Details

-----  
to center ||| ----- ||| ----- to one side of loop  
20 turns ||| ||| 5 turns #22 wire  
----- ||| ----- ||| ----- to other side of loop  
to grd -----

Very crude to be sure. Wind the transformer/balun on a T-50-2 Amidon coil form 20 turns on the coax side and 5 turns on the loop side. The loop is made from #12 "house wire". The loop is divided where the transformer and the capacitor are connected to the loop. The cap is a 100pf air variable. The loop measures 33" across the bottom and top, should be square, and the diagonal measurements are 46.5 inches. The support that was used in the article was a wooden cross with the #12 wire stapled to the wood. If you cannot get the picture from the very crude and quick drawing above, give me your mailing address and I would be more than happy to send you a copy of the original plans. As I stated in the first message, I have not yet been successful in getting this antenna to tune but did not follow the original plans religiously either. Hope that helps.

Best  
Jess

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: jess.gypin@dinosaur.com  
Subject: [3616] Mike for cascade?  
Message-ID: <9509292034.0SW9T00@dinosaur.com>

--> Quoting Dmalinak@class.org to Jess Gypin <--

Dm>

Dm> Another question to the multitudes...at least those who have started  
Dm> on their Cascades. I have no VHF/UHF gear and thus no speaker mikes.  
Dm> Does the Cascade manual recommend any particular mikes for use with  
Dm> the rig? Just wondering what I should start scrambling around for. Do  
Dm> any of the assorted Radio Shack/MFJ speaker mikes have ready-to-go,  
Dm> plug-and-play connectors that will fit the radio's connectors?

Dm> 72/73 David N2SMH  
Dm> Glen Rock, NJ

I would also suggest to you and the list that if you need to get a mike and don't mind spending a little extra that you look at Rat Shack's VOX headset. I picked one up at a swap meet for about \$40.00 a couple of months ago and then it dawned on me after using it on the Alinco HT and the Rat Shack HT's that it would be really nice for use on the Cascade that I had ordered. Seeing that it already has its own self contained VOX and uses a AAA battery,

might be just the ticket for the Cascade.

Best  
Jess

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: n1list@netcom.com (Michael L. Ardai)  
Subject: [3619] n1list's cascade update #2  
Message-ID: <199509300437.VAA05665@netcom18.netcom.com>

This is sure a fun radio to build...

I had to take two turns off L1 to get it up to 5.150. None of the stores I tried had ever heard of q-dope, so I made some from packing peanuts and acetone.

Got sections 4 and 5 done tonight. Here's my notes from them:

Section 4:

C96 is the non-polarized cap. There is no C98.  
The cross ref is missing D11 (1N914)  
R27 was already installed in Section 1.

Section 5:

Some of the NP0 ceramic discs are actually little blue blobs  
The square pad for C12 did indeed go to pin 7, so it is OK  
Q16 had to be installed in Section 4 for the test to work  
R7 (the other pot) was installed in Section 1.

Safety note:

Don't leave resistor legs lying around your bench. It looks too much like solder until you try to solder with it. Then you discover that it conducts heat \*much\* better...

/mike

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: PArland@aol.com  
Subject: [3623] PRC-64  
Message-ID: <950930063333\_33001724@emout05.mail.aol.com>

GRC-109s and PRC-74s are nice....BUT....if you want a REAL QRP rig that was designed to be abused, locate a PRC-64. There were several different



variations, one for SF (Special Forces) and at least two models for CIA. I've only seen pictures, but understand that they can be found at hamfests occasionally.

Powre output is about 7 -10 watts, CW. They were designed for rugged use and came with an add-on that enabled "burst" transmissions (high speed CW) to minimize on-the-air time and reduce the possibilities of being RDFed by hostiles.

Anybody on the list ever see one of these beasts up close? Better yet, you got one to sell or trade?

73 rich  
K7YHA

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: adam@philadelphia.libertynet.org (Adam O'Donnell)  
Subject: [3608] QRP Projects, 80M (low parts) Transmitter (fwd)  
Message-ID: <9509292338.AA08127@philadelphia.libertynet.org>

I just thought that you guys may be interested in this.

>  
> > 80 Meter (Low parts) Transmitter (from Jeffrey Herman, NH6IL)  
> >  
> > -----  
> > Gang,  
> >  
> > If there was a contest to come up with a xmtr containing as few  
> > parts as possible, this would be the winner: 10 parts if you include  
> > the key, battery, and antenna!  
> >  
> > In the CODE/NO-CODE debate on r.r.a.policy some pro-coders will  
> > mention the simplicity of CW xmtrs as opposed to those of other  
> > modes; this circuit really drives that point home (that's why I'm  
> > posting this on .policy)  
> >  
> > On r.r.a.misc we've heard talk about how costly ham gear is today -  
> > all this rig will cost you is the effort to find an old color TV  
> > chassis - that's the parts source for all my QRP transmitters (and  
> > this is why I'm also posting this on .misc).  
> >  
> > Normally I post these xmtrs only on r.r.a.homebrew and on the QRP  
> > mailgroup; so if you've missed the first dozen xmtr circuits email  
> > me and I'll send them off to you.  
> >



> >  
> > Jeff, NH6IL  
> >  
> > Jeffrey Herman, University of Hawaii Mathematics, jherman@Hawaii.Edu  
> >  
> > -----  
> > Last Modified Monday, December 12, 1994 - Lou Williams  
> > (nsyslaw@acs.ncsu.edu, KE4ARM)  
>

72

--  
Adam O'Donnell, N3RCS  
Amsat: N3RCS@AMSAT.ORG  
Internet: ADAM@LIBERTYNET.ORG

"I want to know how God created this world. I am not interested in this or that phenomenon. I want to know His thoughts, the rest are details."

-- Albert Einstein

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: George.Gingell@bbs.abs.net (George Gingell)  
Subject: [3602] RG-59 & Loop Antenna  
Message-ID: <1995Sep29.155305.28134@abs.net>

I would like to say that I have been using one half of a piece of twin RG-59 Type cable (Zipped) with my 80 Meter Horizontal Loop for about 5-6 years now. It works fine for me and THE PRICE WAS RIGHT. I say go for it! If you have an ATU available, so much the better. I keep saying that I am going to give the "Twin Coax" (Coax shielded open wire feedline idea a try one day). Tying the shields together and grounding one end then using the antenna tuner as if with open feedlines.

Some say that works great.

QRP DX TU (C)1986 Danny Gingell, K3TKS

P

--

George Gingell, user of the UniBoard System @ abs.net  
E-Mail: George.Gingell@bbs.abs.net  
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA  
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: dh@deneb.csustan.edu (Doug Hendricks)  
Subject: [3611] St. Louis Tuner Status  
Message-ID: <9509300014.AA12474@deneb.csustan.edu>

The next project for the NorCAL Club is the St. Louis Tuner. But guys we are still in the middle of the Cascade. Please be patient. I don't foresee us taking any orders soon. There should be an announcement in the December issue of QRPP. Grover, I apologize for not answering my email. I lost your message and did not have your email address. Guys, remember this is a club project, done by volunteers, we will get to it, but it may take awhile. Not complaining because everyone has been great, just reminding. 72, Doug

.....  
Who will be the first to finish a Cascade??????  
72. doug

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: groverc@gvgadg.gvg.TEK.COM (Grover Cleveland)  
Subject: [3597] What is this thing?  
Message-ID: <9509291633.AA14840@gvgadg.gvg.tek.com>

"audio ampliphication" - huh?

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: "Ted Kell" <kell@mpac.jsc.nasa.gov>  
Subject: [3594] Where is Errata #1  
Message-ID: <199509291525.LAA78268@nss2.CC.Lehigh.EDU>

doug sent out Cascade Erratas #2 and 2B. Was there a #1? If so, I missed it. If some kind soul has could they please send it to me? Thank you very much.

72

KC5CUW

Ted Kell (kell@mpac.jsc.nasa.gov)

(To clarify things, Some other person saying to me)

You live in Houston? Well, bless your soul!

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: Walt\_Englund-RRGT70@email.sps.mot.com  
Subject: [3592] [1]QRP-L digest 133  
Message-ID: <"Macintosh \*/PRMD=MOT/ADMD=MOT/C=US/"@MHS>

Reply to: [1]QRP-L digest 133  
Hey! I'm not here. Go away!!!

-----  
From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: mont@netcom.com (Mont Pierce)  
Subject: [3600] Re: Fox hole radio/crystal earphone  
Message-ID: <199509291737.KAA24320@netcom.netcom.com>

>  
> You wrote:  
>  
> When I was about 8 years old, I built a "fox-hole" radio. It  
> used (as mentioned before) a razorblade and pencil-lead (graphite)  
> for the detector and a coil of enameled wire around an empty TP  
> spool. I already had a crystal earphone, and when connected,  
> could tune in two local AM broadcast stations (both within 20 mi.).  
> ...  
> snip  
> ...  
>  
> Dale:  
>  
> It was my experience as a kid that I could hook just a crystal earphone  
> between my antenna and ground and get all the local radio stations (at  
> once)! Your crystal earphone may have been the key to the success of your  
> early experiment! :-)

Well I don't know about the crystal earphones... But I can testify to the fact that a razor blade and pencil lead does create a diode. I did the same experiment when I was a kid. For earphones I use the earplug that came with a 9v transistor radio.

In this experiment the pencil lead is taped to a safety pin and the safety pin head bent over and loosely held by a screw into a piece of wood. The safety pin holds the lead vertically over the razor blade with the weight of

the pin pushing down. You then move the lead around until you make a good contact on the razor blade and begin to hear AM radio signals.

This is a great experiment for young kids, in just a few minutes with common materials you can build a crystal set radio :) :)

72, de km6wt

--

Mont Pierce

```
+-----+
| Ham Call: KM6WT           Internet:  mont@netcom.com      |
|   bands: 80/40/20/15/10/2 |                             |
|   modes: cw,ssb,fm        |                             |
+-----+
```

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995

From: "John F. Woods" <jfw@jfwhome.funhouse.com>

Subject: [3593] Re: Is RG-59 ok for feedline?

Message-ID: <199509291522.LAA08933@jfwhome.funhouse.com>

> When I first became a ham, 20 years ago, we always used RG-59 for dipoles  
> and RG-58 for verticals. If I remember right, a straight dipole is  
> actually about 72 ohms impedance. Then, as the dipole elements change  
> angles, the impedance lowers. A Vertical antenna with radials at 90  
> degrees is actually about 34 ohms impedance.

There's two issues. Probably the most important one is that, as you point out, modern transistor rigs are designed for a fixed 50-ohm load, which implies 50 ohm coax coming out of the rig (though 75-ohm coax is only 1.5:1 SWR!). Next, the impedance of a dipole \*in free space\* is 72 ohms; closer than about 4 wavelengths to a ground plane (like the ground) the impedance changes, starting out around 20 ohms for around 1/8 wave above ground, peaking around 100 ohms at some height I've forgotten, and then oscillating around 72 ohms with lessening amplitude until you get sufficiently far away. (There's a diagram of this in the ARRL Handbook.) The usual rule of thumb is that a dipole at "typical" amateur elevations is actually around 50 ohms, but I think that's just an excuse to validate calling it 50 ohms; that's the most height-sensitive portion of the curve, and I don't recall the requisite height for exactly (or even nearly) 50 ohms being any more obviously typical than any other impedance (in fact, for 10 meters, I think well above 72 ohms is not out of the question for many perfectly reasonable installations!).

72 ohm coax feeding a "50" ohm antenna to a "50 ohm" rig might end up presenting the rig with an embarassingly reactive load; if you can get your dipole WAY up in the air, 72 ohm coax to a 72 ohm antenna from a "50 ohm"

rig will be a better match than many people achieve using 50 ohm coax and hope.

72, John, WB7EEL

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995

From: "rohre" <rohre@arlut.utexas.edu>

Subject: [3596] RE: Is RG-59 ok for feedline?

Message-ID: <n1399820136.79484@msmailgw1.arlut.utexas.edu>

Actually Paulette,

For a loop, depending whether it is fed in one corner, or the center of a side; the impedance will be closer to that of RG-59 than RG-58. The 58 is 50 ohm cable, the 59 is 75 ohm. If the loop were fed in the center of one side, you could expect 150 to 200 ohms antenna feed point impedance; thus the 75 ohm cable might be a mis match of 2:1 SWR, while the 50 ohm cable would be 3.5:1 SWR. This is for a high loop, and in reality, ground being near and under it will modify the antenna input impedance of the loop.

If you can borrow an Autek RF-1 or MFJ antenna analyzer, you can attempt to characterize your loop input impedance. I say "attempt" because you may be putting the feed point higher than you can reach with a ladder to attach the analyzer right at the feed. What you could do is temporarily pull the loop up high enough above the roof that you can still touch the center of one side, or a corner. Place an insulator both places, to open the loop. With the analyzer set to measure impedance or SWR, short the corner opening and measure the center feed impedance. Now reverse the process, putting a jumper at the center, and measure the corner feed impedance. Use whichever is closer to the 75 ohms, if it is under 2:1 SWR, and you are using the RG-59 coax. You could also calculate an exact coax length that would transform antenna feed point impedance to 50 ohms at your rig, but that would be good for 40M and no other band. You did not say, but if you have a tuner, you could try the loop on higher bands.

IF your run of coax to the rig is not very long, say well under 100 feet, you could just feed whichever point is convenient, and use a tuner, tuning both the coax and the loop to match to the 50 ohms your transceiver wants to see. You would need an SWR meter in line to the tuner, and a tuner for unbalanced line.

Now I can hear the howls of the purists. Actually, the loop IS a balanced feed antenna, and in THEORY you should be feeding it with some kind of open wire line, or twin lead, both of which are balanced lines. Now if you can't do that, you could use a 2:1 balun at the center of a side, and use the RG-59 for its 75 ohms would then be stepped up to a pretty good match to a practical elevated loop. The balun at the feed point provides an insulator, and the transfer from balanced antenna to unbalanced coax. If you have a 4:1 balun,

lying around, that might work, but less well. BUT, since this is 40 Meters we are talking about, you probably can get pretty good results by direct coax feed, if you have a tuner, and no one can hear the difference on the air, for the horizontal loops most hams can put up. ( That is, above a house, rather than completely over open ground and a half wave high.) Part of the thrills of amateur radio is making something do with what we have available at the time. If you find you have too much RF on the outside of the coax, or high SWR in the shack that can't be tuned out of the unbalanced feed, then you could go to the expense of the balun, or open wire line feed.

Commercial modern rigs have SWR sensing circuits to cut back power or shut down if the antenna feed is too far off what the rig wants to see. The kit QRP rigs have a zener on the collector of the final transistor to protect it for the same reasons. Thus, nothing bad will happen up to 2:1 SWR, and maybe more, if the rig has working protective circuitry. Your power out may suffer a little on a commercial rig that lowers power automatically above 3:1 SWR.

The wave lengths are so long at 80 and 40 M, that unbalancing a dipole, or a loop may not detract from its operation. Another trick for the loop with direct coax feed, is to just coil about 6 turns of the coax at the feed point if no balun is used; and lead the feedline away at right angles to the wire of the loop. This "cable choke" will choke RF that would tend to flow back over the outside of the coax shield toward the rig. (That is where RF in the shack could originate.)

Notice again for the purists, I have not approached this from a ground up theoretical

this is best and the only way to do it; because it appears from the post that certain materials were at hand; and perhaps no balun; so how do we get this working right away? Yes, doing it the "book" way may give the best results; but I think we learn by doing, and no harm will result from trying what is available, given that we monitor the SWR, and try to make the rig happy.

Good luck with your loop, and let us know if you can measure the corner vs. center of a leg what you find, for the elevation you choose. (And indicate if part or all of the loop is over the house.) Another way to measure it at full elevation is to use an exact half wave of coax for 40M, and measure at that frequency, with the loop cut for that frequency, and then what you measure at the coax end in the shack will be reflected feed impedance. But you may have an upstairs shack, and not need that much feed line, etc.

72, Stuart K5KVH  
rohre@arlut.utexas.edu

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: frank@yorks.demon.co.uk (Frank, G3YCC)



Subject: [3598] Re: QRP all around  
Message-ID: <7693@yorks.demon.co.uk>

Hi Richard... just to say well done on the packet info which I read regularly,  
but also get the qrp-l info from the internet also.  
Keep up the good work!

--

Frank G3YCC (G QRP 042)  
Email: frank@yorks.demon.co.uk

From qrp-l@lehigh.edu Sat Sep 30 10:23:00 1995  
From: william.redfearn.cmwdr01@nt.com  
Subject: [3595] re:QRP with IC735  
Message-ID: <"17135 Fri Sep 29 10:16:10 1995"@nt.com>

\*\*\*\*\* start message \*\*\*\*\*  
subject: QRP with IC735

These rigs normally operate with power output in the range 10 - 100  
watts which is controlled by means of a slider on the front panel .  
There is also an internal switch which halves the power output. I had  
heard of these rigs being used for QRP and after enquiries to ICOM  
Australia and other sources, who could offer no help beyond what was  
in the manual, was finally advised by ICOM Support in the U.S., via  
the Compuserve network what to do.

\*\*\*\*\* end message \*\*\*\*\*

On my IC-735, I just adjusted the LOW RF Power pot so that with the  
front panel RF POWER control at minimum, the actual RF output  
was 4.5 watts. This pot is on the PC board near the 50/100 watt  
switch and can adjust the power output down to 0. I don't remember  
the actual designation without the schematic in front of me but it  
is part of the TX ALC circuit and is on the schematic (but not the  
picture showing the adjustment points). There is also a HIGH Power  
for setting the maximum power output (you may not want to adjust  
that one).

73 - Dave.

=====  
Dave Redfearn, Sr RF Systems Engineer      NORTEL    RTP, NC.  
ph.(919) 992-3925    email: cmwdr01@nt.com      qrl? de N4ELM/qrp

All opinions are my own, no one else wants them.

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: jcumming@clark.dgim.doc.ca (Jim Cummings)  
Subject: [3601] Re: QRP with IC735  
Message-ID: <9509291931.AA04696@clark.dgim.doc.ca>

>Hi gang,

>

>Some of you may be interested in the following which shows how to run an  
>IC735/731 for QRP operation.

>

>

>----- Cut here -----

>

>      Use of IC735 H/F Transceiver for QRP operation

>

>

>Others may be interested in this simple project to use IC735 or  
>IC731 H/F transceivers for QRP work as it took a fair amount of  
>investigation to find out what to do and then to make it work.

>

>These rigs normally operate with power output in the range 10 - 100  
>watts which is controlled by means of a slider on the front panel .  
>There is also an internal switch which halves the power output. I had  
>heard of these rigs being used for QRP and after enquiries to ICOM  
>Australia and other sources, who could offer no help beyond what was  
>in the manual, was finally advised by ICOM Support in the U.S., via  
>the Compuserve network what to do.

>

>They suggested using the external ALC connection on the ACC(2) socket  
>at the rear of the set where a voltage from -4 to 0 would control  
>output from zero to the power level set on the front panel. ACC(2) is  
>a 7 pin socket used to connect to an automatic ATU (the 8 pin ACC(1)  
>socket could also be used as it contains similar connections but note  
>that the pins are different).

>

>My first attempt at this using only a potentiometer across an external  
>battery gave either full power or nothing. A later attempt got it  
>right. The voltage controlling the power is very sensitive and on my  
>IC731 only a small change of around 0.1 volt or so in the 1.5 volt  
>region changes the output from zero to the set amount.

>

>The circuit is shown below. 3 volts seems OK to supply the voltage (as  
>polarity is reversed, the internal supply can't readily be used), and  
>the 12k resistors allow the 5k linear pot to cover only a small  
>voltage range. You may need to experiment with the resistor values to



upside down, find the slide switch at the rear left center. This is the switch that selects either 50 of 100 watts as the maximum output available from the transmitter. Push the switch to the rear of the radio. This is the 50 watt position.

Next, find the pot labeled (sic) R-267 at the right rear of the radio. Turn the pot to full clockwise position. This is the minimum output setting. You should now have about four watts output with the front panel control set at a minimum, and about 50 watts out at maximum. R-268, locate just to the of R-267, sets the maximum power output when the front panel control is advanced to the maximum position.

Find the pot labeled (sic) R-361 at the front left of the radio. If you want lower power output, adjust this pot for the lower power setting desired. This adjustment is quite touchy at settings below two watts out but, if you are careful, you can get outputs down to approximately one watt. You can maintain this power level through a reasonable amount of vibration, such as while operating portable or mobile. Be aware that this adjustment will probably change the power output obtainable when the front panel control is advanced to the maximum position. For example, with the R-361 adjusted to 1.9 watts, the maximum that you get is 30 watts.

Replace the bottom cover. You should now have a power control for the IC-735 while operating QRP.

The newer IC-725 can be adjusted down to QRP levels via the front-mounted drive control. You won't need the get inside the radio to modify it for QRP use.

End of instructions for the 735.

If I may add, I would suggest that you find the mod which swaps the SQUELCH control with the RF DRIVE control. In the stock IC-735, the SQUELCH is an outer ring pot control surrounding the VOLUME control, while the RF DRIVE control is one of those sliding pots in the front. The modification is quite simple and swapps the lines. As a result, the SQUELCH will adjust the power out, and do so more smoothly. As I can recall, the mod was described in a Hints and Kinks collection of QST. If you can't find it. let me know and I will see if I can look it up for you.

=====

Jim Cummings

eMail:jcumming@clark.dgim.doc.ca

packet:VE3XJ@VE3JF.#EONT.ON.CA.NOAM

73 and live better digitally

DON'T GET TOO EXCITED...  
because remember, today is the first  
day of the rest of your life.

=====

From qrp-1@lehigh.edu Sat Sep 30 10:23:00 1995  
From: dsa@apollo.hp.com  
Subject: [3599] Re: What is this thing?  
Message-ID: <199509291714.NAA46027@nss2.CC.Lehigh.EDU>

> "audio amphliphication" - huh?

I think it's probably just a typo. What was probably meant was  
"audio amphibliphication". That is "liphication" that works  
both on land and on the water. ...at the audio rate, of course.

Sorry, I couldn't resist. Probably the oxycodone I'm on or my  
maybe sinus infection has finally reached my brain...